REMARKS

Applicants submit this Reply in response to the non-final Office Action mailed April 27, 2010. Claims 30-58 are pending in this application, of which claims 30 and 44 are independent. By this Reply, Applicants have amended claims 30, 32, 35-37, 40, 41, 44, 46, 49-53, 55, and 57 and canceled claims 31, 33, 34, and 45 without prejudice or disclaimer. No new matter has been added.

In the Office Action, the Examiner objected to the specification based on informalities: rejected claims 35, 37, 41, 49-52, 55, and 58 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention; rejected claims 30, 31, 36, 37, 39, 44, 45, 50, 53, and 54 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent App. Pub. No. 2002/0153803 ("Takagi"); rejected claims 30, 39, 43-45, 51, 53, and 54 under § 102(b) as being anticipated by U.S. Patent No. 5,248,357 ("Miyanaga"): rejected claims 30, 31, 33-39, 42, 44, 45, 50, 51-54, and 58 under § 102(b) as being anticipated by U.S. Patent No. 4,555,287 ("Goodfellow"): rejected claims 32, 40, 46, and 55 under 35 U.S.C. § 103(a) as being unpatentable over Takagi or Goodfellow in view of U.S. Patent No. 6,576,077 ("Mitsuhashi"); rejected claims 40, 46, and 55 under § 103(a) over Miyanaga in view of Mitsuhashi; rejected claim 56 under § 103(a) over Takagi, Goodfellow, or Miyanaga in view of Applicants' admitted state of the prior art; rejected claims 41 and 57 under § 103(a) over Takagi, Goodfellow, or Miyanaga in view of the admitted state of the prior art, and further in view of Mitsuhashi; rejected claims 30, 31, 33, 34, 44, 45, 47, 48, and 50 under § 103(a) over U.S. Patent

No. 4,738,738 ("Holroyd I") in view of U.S. Patent No. 5,201,975 ("Holroyd II") and U.S. Patent No. 4,561,927 ("Sumner"); rejected claim 47 under § 103(a) over Takagi in view of at least one of Holroyd I and U.S. Patent No. 3,143,450 ("Barber"); rejected claim 48 under § 103(a) over Takagi in view of at least one of Holroyd I and Barber, and further in view of Sumner; and rejected claim 49 under § 103(a) over Takagi, Goodfellow, or Miyanaga in view of U.S. Patent No. 4,288,265 ("Pacciarini").

Applicants respectfully traverse all pending rejections for at least the reasons discussed below.

Objections to the Specification

In the Office Action, the Examiner objected to the specification based on informalities. Specifically, the Examiner asserts:

At page 5, line 35 - page 6, line 7 of the specification, the references to certain claims by number should be removed as claim numbers can vary during prosecution.

At page 18, line 24 of the specification, it appears that the reference to "Figs. 6 to 10" should instead refer to "Figs. 7 to 10" as fig. 6 does not appear to correspond to the alternative embodiment.

Office Action at 2.

By this Reply, Applicants have amended the specification to delete any references to specific claims and amended page 18, line 24 of the specification to refer to "Figs. 7 to 10."

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the objections to Applicants' specification.

Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 35, 37, 41, 49-52, 55, and 58 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. With respect to claim 35, the Examiner asserts, "[C]laim 31 defines that the radial expansion step joins the belt to the underbelt insert. As such, the belt structure would have to have already been assembled, this being inconsistent with the claim 35 requirement defining that the assembling of the belt is after the radial expansion step." Office Action at 2.

By this Reply, Applicants have amended claim 35 to recite, in part, "wherein the step of assembling the belt structure on the auxiliary drum is carried out <u>during</u> said radial-expansion step"

With respect to claim 41, the Examiner alleges, "the phrase 'a tire under working' is awkward and confusing." <u>Id.</u> However, by this Reply, that language has been deleted from claim 41.

With respect to claims 49-52 and 58, the Examiner asserts that there is no antecedent basis for "the/said 'expandable support." <u>Id.</u> at 3. By this Reply, claims 49-53 have been amended to depend from claim 45 rather than claim 44. Claim 45 recites, in part, "an expandable support." Moreover, claim 58 depends from claim 53.

With respect to claim 55, the Examiner asserts, "In claim 55, line 1, the antecedent for 'said devices' is ambiguous as there are different 'devices' defined in the last lines of claim 44 as well as in claim 53." Id. By this Reply, Applicants have amended claim 55 to recite, in part, "said devices for application of the tread band."

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 35, 37, 41, 49-52, 55, and 58 under 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 102

Applying 35 U.S.C. § 102(b), the Examiner rejected claims 30, 31, 36, 37, 39, 44, 45, 50, 53, and 54 as being anticipated by <u>Takagi</u>; rejected claims 30, 39, 43-45, 51, 53 and 54 as being anticipated by <u>Mivanaga</u>; and rejected claims 30, 31, 33-39, 42, 44, 45, 50, 51-54, and 58 as being anticipated by <u>Goodfellow</u>.

In order to properly establish that either of <u>Takagi</u>, <u>Mivanaga</u>, or <u>Goodfellow</u> anticipates Applicants' claimed invention under 35 U.S.C. § 102, every element of the claims at issue must be found, either expressly or described under principles of inherency, in that single reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the... claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

No reference cited by the Examiner appears to disclose every element recited in Applicants' amended claims. Amended independent claim 30 recites, in part:

wherein a pair of sidewalls, each extending until close to a radially internal edge of the carcass structure, are laterally applied to the carcass structure on opposite sides, and

wherein during said step of assembling said belt structure, at least one underbelt insert is associated with said at least one belt layer at a radially internal position, by:

applying said at least one underbelt insert onto an expandable support, said at least one underbelt insert having an axially internal

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portion tapering towards an equatorial plane of the tyre and an axially external portion; and

radially expanding the expandable support to mutually join the belt structure to said at least one underbelt insert,

wherein an angular rotation is imposed to said at least one underbelt insert concurrently with the radial-expansion step, whereby the axially internal portion is oriented substantially parallel to an inner surface of the belt structure and the axially external portion is oriented tapering towards a rotational axis of the tyre in consequence of said angular rotation.

Amended independent claim 44, although of different scope, recites similar features.

Support for these amendments can be found at least at pages 7-8 and 14 of Applicants' specification and canceled dependent claims 31, 33, 34, and 45.

In the Office Action, the Examiner asserts that Takagi discloses that "during assembling the belt structure, at least one underbelt insert (72) is associated with a radially internal position of the belt structure (e.g. paragraph [0067])." Office Action at 4. However, nowhere does Takagi appear to disclose "said at least one underbelt insert having an axially internal portion tapering towards an equatorial plane of the tyre and an axially external portion . . . wherein an angular rotation is imposed to said at least one underbelt insert concurrently with the radial-expansion step, whereby the axially internal portion is oriented substantially parallel to an inner surface of the belt structure and the axially external portion is oriented tapering towards a rotational axis of the tyre in consequence of said angular rotation," as recited in amended independent claim 30. Similarly, Mivanaga nowhere discloses, "applying said at least one underbelt insert having an

axially internal portion tapering towards an equatorial plane of the tyre and an axially external portion; and radially expanding the expandable support to mutually join the belt structure to said at least one underbelt insert, wherein an angular rotation is imposed to said at least one underbelt insert concurrently with the radial-expansion step, whereby the axially internal portion is oriented substantially parallel to an inner surface of the belt structure and the axially external portion is oriented tapering towards a rotational axis of the tyre in consequence of said angular rotation." Furthermore, Goodfellow nowhere discloses, "wherein a pair of sidewalls, each extending until close to a radially internal edge of the carcass structure, are laterally applied to the carcass structure on opposite sides, and wherein during said step of assembling said belt structure, at least one underbelt insert is associated with said at least one belt layer at a radially internal position."

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of amended independent claims 30 and 44 under 35 U.S.C. § 102(b) based on <u>Takagi</u>, <u>Miyanaga</u>, and <u>Goodfellow</u>.

Moreover, claims 31, 33-39, 42-45, 50, 51-54, and 58 each depend from one of independent claims 30 and 44 and, thus, contain all the elements and limitations thereof. As a result, dependent claims 31, 33-39, 42-45, 50, 51-54, and 58 are allowable at least due to their corresponding dependence from independent claims 30 or 44.

Rejection Under 35 U.S.C. § 103(a)

Applying 35 U.S.C. § 103(a), the Examiner rejected claims 32, 40, 46, and 55 as being unpatentable over <u>Takagi</u> or <u>Goodfellow</u> in view of <u>Mitsuhashi</u>; rejected claims 40, 46, and 55 over <u>Miyanaga</u> in view of <u>Mitsuhashi</u>; rejected claim 56 over <u>Takagi</u>.

<u>Goodfellow</u>, or <u>Miyanaga</u> in view of Applicants' admitted state of the prior art; rejected claims 41 and 57 over <u>Takagi</u>, <u>Goodfellow</u>, or <u>Miyanaga</u> in view of the admitted state of the prior art, and further in view of <u>Mitsuhashi</u>; rejected claims 30, 31, 33, 34, 44, 45, 47, 48, and 50 over <u>Holroyd I</u> in view of <u>Holroyd II</u> and <u>Sumner</u>; rejected claim 47 over <u>Takagi</u> in view of at least one of <u>Holroyd I</u> and <u>Barber</u>; rejected claim 48 over <u>Takagi</u> in view of at least one of <u>Holroyd I</u> and <u>Barber</u>, and further in view of <u>Sumner</u>; and rejected claim 49 over <u>Takagi</u>, <u>Goodfellow</u>, or <u>Miyanaga</u> in view of <u>Pacciarini</u>. Applicants respectfully traverse these claim rejections for the reasons outlined in more detail below.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must disclose all of the claim limitations, or the claim rejection must explain why the differences between the prior art and the claim limitations would have been obvious to one of ordinary skill in the art. See M.P.E.P. § 2141.

A *prima facie* case of obviousness has not been established because, among other things, none of <u>Takagi</u>, <u>Goodfellow</u>, <u>Mitsuhashi</u>, <u>Miyanaga</u>, <u>Holroyd I</u>, <u>Holroyd II</u>, <u>Sumner</u>, <u>Barber</u>, or <u>Pacciarini</u>, alone or in any combination, teaches or renders obvious every feature of Applicants' claims. Applicants have already established in the previous section that none of <u>Takagi</u>, <u>Miyanaga</u>, and <u>Goodfellow</u> teach at least:

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wherein a pair of sidewalls, each extending until close to a radially internal edge of the carcass structure, are laterally applied to the carcass structure on opposite sides, and

wherein during said step of assembling said belt structure, at least one underbelt insert is associated with said at least one belt layer at a radially internal position, by:

applying said at least one underbelt insert onto an expandable support, said at least one underbelt insert having an axially internal portion tapering towards an equatorial plane of the tyre and an axially external portion; and

radially expanding the expandable support to mutually join the belt structure to said at least one underbelt insert,

wherein an angular rotation is imposed to said at least one underbelt insert concurrently with the radial-expansion step, whereby the axially internal portion is oriented substantially parallel to an inner surface of the belt structure and the axially external portion is oriented tapering towards a rotational axis of the tyre in consequence of said angular rotation.

Similarly, Holroyd I fails to teach or render obvious at least, "applying said at least one underbelt insert onto an expandable support, said at least one underbelt insert having an axially internal portion tapering towards an equatorial plane of the tyre "

Additionally, and contrary to the Examiner's assertions, Holroyd I also fails to teach or suggest, "radially expanding the expandable support to mutually join the belt structure to said at least one underbelt insert, wherein an angular rotation is imposed to said at least one underbelt insert concurrently with the radial-expansion step, whereby the axially internal portion is oriented substantially parallel to an inner surface of the belt structure and the axially external portion is oriented tapering towards a rotational axis of the tyre in consequence of said angular rotation." Indeed, the "service unit . . . of the first type" referred to on column 6, lines 27-31 of Holroyd I is disclosed as having "a single inflatable bag and a consolidating head which has a crown shaped cross-section to give

the finished profile 37 shown in FIG. 8." Thus, joining and angular rotation (if any) of the underbelt insert is achieved by the "consolidation head" (see reference 7 in figure 1), not the inflatable bag.

Moreover, the Examiner's additional citation of <u>Mitsuhashi</u>, <u>Holroyd II</u>, <u>Sumner</u>, <u>Barber</u>, and <u>Pacciarini</u> fail to cure the deficiencies of <u>Takagi</u>, <u>Miyanaga</u>, <u>Goodfellow</u>, and <u>Holroyd I</u> as these references similarly fail to teach or render obvious at least the aforementioned claim elements.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of amended independent claims 30 and 44 under 35 U.S.C. § 103(a) based on <u>Takaqi</u>, <u>Goodfellow</u>, <u>Mitsuhashi</u>, <u>Miyanaqa</u>, <u>Holroyd I</u>, <u>Holroyd II</u>, Sumner, Barber, and Pacciarini.

Moreover, claims 31-34, 40, 41, 45-50, and 55- 57 each depend from one of independent claims 30 and 44 and, thus, contain all the elements and limitations thereof. As a result, dependent claims 31-34, 40, 41, 45-50, and 55- 57 are allowable at least due to their corresponding dependence from independent claims 30 or 44.

Claim Scope

It is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and or shown in the drawings. Rather, Applicants believe that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of this application, and the timely allowance of the pending claims.

If the Examiner believes that a telephone conversation might advance prosecution of this application, the Examiner is cordially invited to call Applicants' undersigned attorney at (404) 653-6435.

Applicants respectfully note that the Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicants respectfully decline to automatically subscribe to them.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: October 26, 2010

Benjamin D. Bailey Reg. No. 60,539